



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,628	06/30/2004	Maya Benson	CE31103P	2975

22917 7590 04/21/2006

MOTOROLA, INC.
1303 EAST ALGONQUIN ROAD
IL01/3RD
SCHAUMBURG, IL 60196

EXAMINER

LAM, DUNG LE

ART UNIT	PAPER NUMBER
----------	--------------

2617

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/500,628	Applicant(s) BENSON ET AL.	
	Examiner Dung Lam	Art Unit 2617	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2006.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-34 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2617

DETAILED ACTION

The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Response to Amendment

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn as the action has been vacated and replaced with the following rejection.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1, 3-4, 13,15, 17,24, 27-28, 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Shi (US Patent No. 6,807,163).

Art Unit: 2617

3. Regarding **claim 1**, **Shi** teaches a method of selecting carriers to be measured by a subscriber unit served by a cellular communication system and operable to measure carriers in a frequency band (see Abstract, Fig. 4 and Fig. 6 and C5-8):

Dynamically determining a frequency of measurement updates (adaptive scan rate interval SRI, Fig. 4, 5 and 6) of the subscriber unit related when measuring carriers in the frequency band (Col. 5 L1-14, L30-42).

and selecting a subset of carriers in the frequency band to be measured by the subscriber unit in response to the frequency of measurement updates (Fig. 4 in response to scan rate interval SRI being passed to the channel scan process 404, a subset of carriers is selected to be scanned/measured, C6 L13 – C7 L62 and Claim 1).

4. Regarding **claims 15**, it is an apparatus claims corresponding to the above method claim 1. Therefore, they are rejected for the same reasons as claims 1.

5. Regarding **claim 3**, **Shi** teaches all the limitations of claim 1 (see claim 1 above). **Shi** further teaches the step of the subscriber unit measuring the carriers of the subset of carriers (Col. 7, lines 37-45).

6. Regarding **claims 27**, it teaches a subscriber unit that have the limitations corresponding to the above combined method claims of 1 and 3. Therefore, it is rejected for the same reasons as claims 1 and 3 (see claim 1 and 3 above).

7. Regarding **claims 4, 17 and 28**, **Shi** teaches all the limitations of claim 1, 15 and 27 respectively. **Shi** further teaches the frequency of measurement updates is indicative of the time required for the subscriber unit to measure carriers (Col. 5 lines 29-42).

8. Regarding **claim 13, 24 and 34**, **Shi** teaches all the limitations of claim 1, 15 and 27 respectively. **Shi** further teaches the step and means of determining a handover candidate carrier from the subset of carriers (Col. 5 line 63 – Col. 6 line 50).

1021 elden st,

Art Unit: 2617

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim **2 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable **Shi** (US Patent No. 6,807,163) in view of **Menich et al.** (US Patent No. 5,327,575).

11. Regarding **claim 2 and 16**, **Shi** teaches all the limitations of claim 1 and 15 respectively. However, **Shi** fails to teach the step and means of transmitting identification of the subset of carriers to the subscriber unit. In an analogous art, **Menich** teaches the step and means of transmitting identification of the subset of carriers to the subscriber unit (Col. 3, lines 50-55). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify **Shi**'s teaching of measuring the carriers to also transmit the candidate cells from the network to the mobile station as taught by **Menich** so that the network can relieve some of the processing tasks from the subscriber unit thereby increasing the subscriber's power conservation.

12. Claim **5-10, 14,18-22 and 29-33** are rejected under 35 U.S.C. 103(a) as being unpatentable **Shi** (US Patent No. 6,807,163) in view of **ETSI TR 125 922 v3.4.0 2000-12** (simply denoted as "**3GPPStandard**").

13. Regarding **claim 5**, **Shi** teaches all the limitations of claim 1 (see claim 1 above). However, **Shi** fails to teach that the frequency of measurement updates is indicative of the number of receivers in the subscriber unit. In analogous art, **3GPPStandard** teaches a UE can do measurements in Compressed Mode if it has only one receiver and alternatively the receiver need not use Compressed Mode to perform measurements when it has a dual receiver, (P.14, Section 5.1.5.1-5.1.5.2.5 and 5.1.6.1). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify **Shi**'s teaching of frequency of measurement updates to be indicative to number of receivers of the subscriber taught by **3GPPStandard**. Because knowing how many receivers a subscriber has would allow the

Art Unit: 2617

network to have a better judgment of assigning the appropriate number of carriers that a subscriber can handle/measure without being overloaded, thus the handoff measurement quality is increased.

14. Regarding **claim 6**, **Shi** teaches all the limitations of claim 1 (see claim 1 above). However, **Shi** fails to teach that the frequency band is a frequency band of a second communication system. In an analogous art, 3GPP2000 teaches that in a handover process from 3G to 2G, inter-system needs to notify the UE of the existing GSM frequencies in the area (P. 14, section 5.1.5.1).

15. Regarding **claim 7**, **Shi** teaches all the limitations of claim 1 (see claim 1 above). However, **Shi** fails to teach that the cellular communication system and the second communication system use different radio access technologies. In an analogous art, 3GPP2000 teaches Inter Radio Access Technology Handover (P.14, Title of Section 5.1.5). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify **Shi**'s teaching of measuring the carriers to also include the handover between different radio technologies because it would allow the system to be compatible with the new technologies and thus be more integrate-able.

16. Regarding **claim 8**, **Shi** and 3GPP2000 teach all the limitations of claim 7 (see claim 7 above). 3GPP2000 further teaches the cellular communication system is a GSM communication system (**2G**) and the second communication system is a UMTS (**3G**) communication system (p14, section 5.1.5.2).

17. Regarding **claim 9**, **Shi** and 3GPP2000 teach all the limitations of claim 7 (see claim 7 above). 3GPP2000 further teaches the communication system is a UMTS communication system and the second communication system is a GSM communication system (Handover 3G to 2G, page 14, section 5.1.5.1).

18. Regarding **claim 10**, **Shi** teaches all the limitations of claim 1 (see claim 1 above). However, **Shi** fails to teach that the update frequency capability of the subscriber unit is determined from a subscriber unit capability report indicating if compressed mode is required to perform measurements on a GSM communication system. In analogous art, **3GPPStandard** teaches a UE can do measurements in Compressed Mode if it has only one receiver and alternatively the receiver need not use Compressed Mode to perform measurements when it has a dual receiver, (P.14, Section 5.1.5.1-5.1.5.2.5 and 5.1.6.1). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify **Shi**'s teaching of

Art Unit: 2617

frequency of measurement updates to be indicative to number of receivers of the subscriber taught by 3GPPStandard. Because knowing how many receivers a subscriber has would allow the network to have a better judgment of assigning the appropriate number of carriers that a subscriber can handle/measure without being overloaded, thus the handoff measurement quality is increased.

19. Regarding **claim 14**, **Shi** teaches all the limitations of claim 1 (see claim 1 above). Although they fail to teach specifically that the frequency of measurement updates is determined from the number of measurement reports reported from the subscriber unit within a given time interval, 3GPP2000 teaches that the number of cells which can be reported by the UE depends on the characteristics of the activated compressed mode patterns (Page 18, section 5.1.6). Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to derive the performance characteristic (single or dual mode receiver) based on the number of the reports to select a re pertinent set of carriers to be measured.

20. Regarding claims **18 – 22**, they are apparatus claims corresponding to the above method claims of 5- 9 respectively. Therefore, they are rejected for the same reasons as claims 5- 9 respectively.

21. Regarding **claims 29-33**, they are claims relating to a subscriber unit that corresponds to the above method claims of 5-9. Therefore, they are rejected for the same reasons as claims 5- 9 respectively.

22. Claims **11, 12 and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shi** (US Patent No. 6,807,163) in view of **ETSI TR 125 922 v3.4.0 2000-12** (simply denoted as “**3GPP2000**”) and further in view of **Lupien** (US Patent No. 5857153).

23. Regarding **claim 11 and 23**, **Shi** and 3GPP2000 teach all the limitations of claim 7 and 15 respectively. However, they fail to teach that the size of the subset of carriers is dependent on an update frequency capability of the subscriber unit. In an analogous art, **Lupien** teaches that when a dual-band capable receive a neighbor list of both 800 and 1900 MHz while the mobile stations that only operates at the 800MHz receives only neighbor cells operating at 800MHz (Col. 6, lines 49-55). Therefore, it would have been obvious to a person of ordinary

Art Unit: 2617

skill in the art at the time of the invention was made add the feature of measuring only the frequencies that the UE is capable of measuring to ensure high accuracy for handoff.

24. Regarding **claim 12**, **Shi** teaches all the limitations of claim 1 (see claim 1 above). Lupien further teaches the limitations wherein the subset of carriers is an ordered subset of carriers and the order of carriers in the subset of carriers is the update frequency capability of the subscriber unit (neighbor cells indicated in a measurement order from the base station, Col. 6, lines 45-47).

Response to Amendment

Applicant's arguments, filed 11/22/05, with respect to the rejection(s) of claim(s) 1-34 under 103(a) have been fully considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment filed on 11/22/05 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Lam whose telephone number is (571) 272-6497. The examiner can normally be reached on M - F 9 - 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DL



LESTER G. KINCAID
SUPERVISORY PRIMARY EXAMINER